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ABSTRACT

This study examined the effects of paternal and maternal job loss on changes in Black and White early adolescents' academic achievement, school attendance, locus of control, and self-concept. It also investigated whether the effects of parental job loss could be explained by contemporaneous changes in parental behavior. Analysis of data on 8th graders observed over 2 years as part of the National Educational Longitudinal Survey indicated that the negative effects of job loss were limited to those associated with the loss of fathers' jobs and were more severe among black families. Among black youth, fathers' job loss had a detrimental effect on math test scores and school attendance. Among white youth, the negative effect of fathers' job loss was limited to youths' locus of control, although this effect was not substantively important. Mothers' job loss showed very few negative effects. The effects of fathers' job loss were not explained by contemporaneous changes in parental monitoring or involvement. Results suggested that effects were more detrimental among families of lower socioeconomic status. (Contains 36 references and 6 tables.) (SM)

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Parental Job Loss and Early Adolescent Adjustment in Black and White Families

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Parental Job Loss and Early Adolescent Adjustment in Black and White Families

Abstract

Economic instability and job displacement remain permanent features of the American economy. However, most existing studies of job loss examine consequences for the adult job losers. Little is known about how children are affected. The present study examines the effects of paternal and maternal job loss on changes in early adolescents' academic achievement, school attendance problems, and psychological adjustment in a national longitudinal data set (the National Educational Longitudinal Survey; NELS). Our analysis suggests that the negative effects of job loss are limited to those associated with the loss of fathers' jobs, and also are more severe among black families. Among black youth, fathers' job loss has a detrimental effect on math test scores and school attendance problems. Among whites, the negative effect of fathers' job loss is limited to youth's locus of control, although this effect is not substantively important. Mothers' job loss shows very few negative effects. The effects of fathers' job loss are not explained by contemporaneous changes in parental monitoring or involvement. Finally, analyses suggest that effects are more detrimental among families of lower socioeconomic status.

Parental Job Loss and Early Adolescent Adjustment in Black and White Families

Economic instability and job displacement remain permanent features of the American economy. For example, in December 2001, the unemployment rate jumped to 5.8%, the highest level since April 1995 (Bureau of Labor Statistics, 2001). At present, 7.7 million Americans are unemployed. A recent Harris Poll showed that fears of losing one's job (along with fears of not having enough money and not having adequate health insurance) are a major worry for most American adults. Such economic trends represent key social forces capable of shaping the life course of a current cohort of American adolescents.

This study examines the association between parental job loss and adolescents' academic test scores, school attendance problems, locus of control, and self-concept. We further examine whether the effects of parental job loss can be explained by contemporaneous changes in parental behavior. To do so, we draw on a national sample of 8th graders observed over a 2-year period (between the 8th and 10th grade). Diminished school performance and reduced sense of personal control in the early years of high school could influence how well adolescents perform later in high school and whether they pursue post-secondary education. This is important because educational attainment has a profound impact on future employment and earnings–for example, in 1995, those with just a high school degree earned, on average, $20,248, while the average annual earnings of college graduates was $37,224 (U.S. Department of Labor, 1998).

Background

Job loss is associated with both immediate and long-term economic consequences. Farber (1997), using the Displaced Worker Survey (DWS)—a regular supplement to the January Current Population Survey (CPS) since 1984—estimates that displaced workers have a large (35 percentage point) probability of being unemployed following a displacement, are five percentage points more likely to work part-time than they were prior to the displacement, and earn 13% less upon reemployment. Ruhm (1991), using the Panel Study of Income Dynamics (PSID), finds that job loss is associated with longer-term losses as well; displaced workers display increased unemployment and decreased wages up to four years following displacement. Jacobson, LaLonde, and Sullivan (1993) also find longer-term economic losses. Using Pennsylvania administrative data, they find that high tenure workers who suffer a job loss have earnings that are 25% lower five years following the job loss.

Job loss has more than economic consequences for families. Numerous studies have examined the consequences of job loss for adults' physical and mental health and marital or social relationships (Keita & Hurrell, 1994; Voydanoff & Majka, 1988) and also for children's development (Conger & Elder, 1994; McLoyd, Jayaratne, Ceballo, & Borquez., 1994). The family process model, derived from developmental psychological theory, emphasizes family stress, parents' psychological resources, and parenting behaviors as key links between adverse social conditions and child development. According to this model, economic stress can affect the ways in which parents respond to their children's needs (Guo & Harris, 2000). Job loss, income loss, and unemployment are posited to diminish parents' mental health. Parents' diminished psychological resources constrain parents' ability to discipline their children effectively and may promote a disengaged or withdrawn parenting style. In turn, ineffective parenting leads to poorer adjustment in the children (McLoyd, 1990). For example, Elder,

Nguyen, and Caspi (1985) proposed a model whereby economic hardship adversely affects children's emotional well-being in part by increasing the rejecting behavior of fathers. Other conceptual models propose that additional parenting behaviors mediate any effect of parental job loss and economic hardship on children's adjustment. These behaviors include parents' ability to monitor or supervise their adolescents—which could increase youth's risk of susceptibility to negative peer pressure and associated behavior problems; parental economic strain, which could diminish parents' nurturing and supportive parenting; and increased parental withdrawal and displays of harsh, erratic, or punitive discipline behaviors (see McLoyd, 1998 for a review).

The major studies related to this issue discuss four family types in two historical periods: (a) white, dual-parent families during the Depression (Elder, 1999); (b) white, dual-parent rural families during the farm crisis of the 1980s (Conger & Elder, 1994); (c) white, dual-parent working class families during the manufacturing crisis of the 1980s (Flanagan, 1990a, 1990b; Flanagan & Eccles, 1993); and (d) low-income, black families of the late-1980s urban "underclass" (McLoyd et al., 1994).

Elder's studies of the children of the Great Depression and Conger and Elder's studies of rural (Iowa) families during the 1980s farm crisis report that economic declines and parental unemployment are associated with early adolescents' delinquency and drug use, depression, loneliness, pessimism about the future, low-self-esteem, and sense of personal inadequacy (see Conger & Elder, 1994, for a summary). The effects were mediated by disruptions in parents' marital relationship and parent-child interactions. The studies were among the first to show the negative effects of job loss and economic hardship on parenting and family processes; however, they are limited in that they are based on non-representative samples and focus predominantly on white families. In a related series of studies, Flanagan (1990a, 1990b; Flanagan & Eccles, 1993) discussed the experiences of working class, white middle-school aged children whose families were affected by the general decline in the manufacturing sector in the 1980s. Flanagan and Eccles's (1993) 2-year longitudinal study of these families showed that parental layoff or demotion was associated with increases in child behavior problems at school, as reported by the teachers and also the students themselves. The longitudinal data used in this study are useful for illustrating change over time in children's well-being as a function of parental job loss; however, the sample is drawn from a local (Southeastern Michigan) area and, like the Conger and Elder studies, focus primarily on white families.

McLoyd and colleagues' (1994) study of inner-city, female-headed families, while cross-sectional and based on a non-representative sample drawn from Southeastern Michigan, made a substantial advance by applying the Conger and Elder conceptual model in a low-income black sample. These researchers linked current unemployment and recent work interruption with maternal perceptions of economic strain, which in turn predicted early adolescents' perceptions of economic hardship. Youth perceptions of economic hardship were, in turn, associated with higher levels of emotional distress.

Other empirical studies have sought to link adolescents' negative perceptions of their parents' labor market experiences with diminished motivation and behaviors such as disengagement from school or work (Galambos & Silbereisen, 1987). Barling, Dupre, and Hepburn (1998) showed that youth's perceptions of their parents' job experiences mediate the effects of parental job insecurity and layoffs on children's beliefs and attitudes. In this study of Canadian undergraduate students and their parents, parents' perceptions that their own jobs were threatened due to downsizing, as well as parents' actual experiences of past layoffs, were accurately perceived and reported by the children. Students' perceptions of parents' job

insecurity, in turn, negatively correlated with the youth's Protestant and humanistic work beliefs (i.e., that work is inherently good and fulfilling and that hard work can overcome obstacles to success). These work beliefs predicted the students' work-related attitudes (motivation toward and alienation from work). When students had a low Protestant work ethic, for example, they were more likely to display low motivation to work. Similar processes could operate with respect to children's attitudes toward and motivation for school, or to other aspects of the students' self-concepts. In a related study, Barling, Zacharatos, and Hepburn (1999) hypothesized that watching one's parents' experiencing job insecurity would be experienced as stressful and would elicit feelings of uncertainty and powerlessness in children. The results showed that undergraduates who perceive their parents to be insecure about their jobs are distracted cognitively and have worse academic performance.

These studies are also cross-sectional and based on small non-representative, white samples. However, an important and consistent finding is that parental job insecurity and job loss correlate with a range of important measures of adolescent adjustment and that parenting behaviors mediate much of the correlation between job loss and economic hardship on children's adjustment. There are several gaps in the existing research that we address in the current investigation. First, many existing studies focus on job loss among working-class or poor families, despite the fact that job loss affects workers at all income levels and is increasingly a middle-class phenomenon (Farber, 1997). Second, most of the studies use cross-sectional data. Longitudinal data are necessary to examine the persistence of effects over time, and to gain greater insight into causal relationships. In addition, existing studies describe relatively small, local samples. Nationally representative data are necessary to address concerns about generalizeability.

A final important concern with previous investigations is that multiple distinct racial groups have not been included in the same study. We thus do not know whether and in what ways parental job loss affects adolescents of different racial groups differently. A major contribution of the present study is to examine the impact of parental job loss among black and white families in a nationally representative sample.

Several strands of research suggest that black workers may be more severely affected by job loss than their white counterparts. First, young black workers are more likely to suffer a job loss than are young white workers while, in contrast, black and white men over the age of 40 have similar incidence of job loss, according to Farber (1993) who used what is likely the best available data on job loss, the DWS. A few studies, however do find higher job-loss rates for all black workers relative to their white counterparts. Using the PSID, Yeung and Hofferth (1998) find that black families with children are twice as likely as whites to experience both a major income loss and a reduction in work hours. Wilson, Tienda, and Wu (1995) find that among college graduates, blacks are 2.24 times as likely to be dismissed or laid off as whites. At present, the black unemployment rate (10.2%) is about twice as high as that for whites (5.8%) (Bureau of Labor Statistics, 2001).

Second, the consequences of job loss appear to be more severe for blacks. Farber (1997), again using the DWS, reported that blacks are about 13 percentage points less likely than whites to be employed following a job loss. Farber (1993) reports that black women in particular suffer larger negative employment effects of job loss than do white women. Spalter-Roth and Deitch (1999), using data from the PSID, found that displaced blacks are more likely than their white counterparts to fall from professional or managerial to lower level occupations and to move from a job with health insurance benefits to reemployment without health insurance.

Third, studies show that black families, at all levels of the socioeconomic spectrum, have fewer economic resources with which to buffer the shock of job loss. As of 1994, more than 50% of blacks, compared to just 15% of other households, had no money in either a checking or a savings account (Loury, 1998). And, while the median white family has assets totaling $72,000, the median net worth of black families is only $9,800 (Conley, 1999). In 1992, while 25% of whites had zero or negative assets, more than 60% of blacks were in such bleak financial straits (Oliver & Shapiro, 1997). Even when blacks do have assets, their portfolios are less diversified than those of whites'—blacks tend to have equity in homes and automobiles (physical assets) or life insurance whereas whites are far more likely to invest in stocks (Chiteji & Stafford, 1999; Loury, 1998). An important difference between these differential patterns of asset-holding is that financial assets (as opposed to physical assets) are highly liquid and can more easily be converted into cash to meet emergencies. Importantly, the difference between black and white wealth (i.e., home ownership, savings, assets) far exceeds race differences in income, occupational, and educational levels (Conley, 1999; Oliver & Shapiro, 1997). These differences in savings and assets could affect adolescent outcomes directly, through parents' diminished ability to purchase material goods in the face of job loss, or it could make the psychological sense of perceived financial strain greater among black job losers, which could negatively affect family processes and adolescent adjustment (McLoyd, 1998).

In summary, we address the following specific questions: (1) Does parental job loss lead to decreased school performance (as measured by math test scores), school-related behavior problems (skipping or being late for school), and diminished psychosocial functioning (locus of control and self-concept) among young teenagers? (2) Are these effects mediated by changes in parental behavior? (3) Do the effects of parental job loss differ in black and white families? And (4) Do the effects differ for families with different socioeconomic characteristics?

Data and Method

Data

This study uses the National Educational Longitudinal Survey (NELS), a longitudinal study of 8th graders who were followed at two-year intervals for the period 1988 through 1994 (i.e., students were interviewed in 8th, 10th, and 12th grades, and 2 years post-high school). At baseline, approximately 27,000 students were selected from approximately 1,000 public and private 8th grade schools that represent the approximately 40,000 such schools in the United States. Students were randomly selected from within these schools. Although the focus of the NELS is the student, respondents also included parents, teachers, and school principals.

The longitudinal design of the NELS permits an examination of adolescents' lives and the role of family, schools, teachers, and community in promoting growth and developmental outcomes. The data are particularly well suited to investigating the school experiences and academic performance of minority youth. The NELS provides data at multiple waves on family demographic characteristics, family income, parent/spouse employment and occupation, parent-child relationships, and a wide range of adolescent and young adult measures of academic attainment and achievement and psychosocial characteristics and attitudes. For the purposes of the present study, we use the first two waves of the NELS (1988 and 1990), when the youth were in the 8th and 10th grades.

27,394 students participated in the initial wave of the NELS (8th grade) and 17,424 students participated in the first follow-up (10th grade). For the present analyses, we examine

only black and white students (Asian students are included with whites) and only those who were present in both of these waves. We therefore excluded 2,295 Hispanic and Native American students. We also exclude the 765 students who dropped out of high school by the 10th grade and those who do not live with at least one parent (i.e., those living with guardians or in institutions) (n=446). Finally, we exclude those students whose parents' marital status changed between 8th and 10th grade (n=1546) so as not to confound the effects of job loss with the effects of family structure changes. We also exclude students whose parent survey was not available at the base year interview (n=574) and students who were missing values on any of the independent and dependent variables (n=2157). This leaves us with a sample size of 9,641 (8868 white students and 773 black students).

The retained sample in general looks more advantaged than those who are omitted. It has a significantly lower incidence of maternal (but not paternal) job loss, fewer very young mothers and more older mothers, fewer single parents, better educated parents, youth who are slightly younger, fewer families for whom English is not the primary language, fewer children in the home, and higher income to needs ratios. In addition, the youth in the retained sample have better test scores, fewer school attendance problems, more internal locus of control, and higher self concepts at both the baseline and first follow-up assessments. Finally, parents in the retained sample are more involved in their children's lives and monitor their children more. Given the relative advantages of our analytic sample, our estimates can be thought of as a conservative estimate of the effects of parental job loss on adolescent development.

Measures

Job Loss. We measure parental job loss in the NELS using student reports. When students are in the 10th grade, they are asked whether their father or mother incurred a job loss during the previous two years. We create two dummy variables reflecting the incidence of job loss (maternal and paternal) during the intervening period. Piotrkowski and Stark (1987) showed that children between the ages of 10 and 17 are accurate reporters of their parents' work conditions and that they are knowledgeable about the concepts of job loss, physical work environments, and hard work.

Outcome measures

All four of the student outcome measures we examine were collected in both the 8th and the 10th grades. In our regression models, these outcomes are represented by changes in the level of each variable between the two periods.

Student test scores. Test scores are standardized math tests administered in the 8th and 10th grades and collected from school records.

School attendance problems. Each wave of the NELS contains two items related to students' school attendance. In the base year survey, students were asked "how often did you cut or skip classes in the past four weeks?" and "how many times were you late for school over the past four weeks?' The items were scored on a 4-point Likert scale ranging from 0 "never/almost never" to 3 "daily." In the follow-up survey, students were asked "how many times did the following things happen to you in the first half of the current school year" – "I was late for school" and "I cut or skipped classes." Answers ranged from 0 "never" to 4 "10 times or more." At each wave, we create a summary score index. Because the time frames and response categories are different across waves, we standardized each summary score index separately.

Locus of control. The six items in the locus of control scale were derived from items in Rotter's internal-external control scale (1966) and were asked at both survey waves. Sample items include, for example, "When I make plans, I am almost certain I can make them work" and "Every time I try to get ahead, something or somebody stops me (reverse coded)." Response categories ranged from (1) strongly disagree to (4) strongly agree; therefore, higher scores indicate higher internal control (i.e., a more desirable outcome). The internal reliability of this measure is .68 and .72 at the base year survey and first follow-up, respectively. Standardized scores are used in the regression analyses.

Self-concept. At each wave, a 7-item scale developed from Rosenberg's (1965) self-esteem scale was administered. Sample items include "I feel good about myself" "I feel I am a person of worth, the equal of other people" and " At times, I think I am no good at all (reverse coded)." Response categories ranged from (1) strongly disagree to (4) strongly agree; therefore, higher scores indicate higher self-esteem. The internal reliability of this measure is .78 and .82 at the base year survey and first follow-up, respectively.

Control variables

We control for a large set of base-year (8^{th} grade) variables including the family's economic resources, the students' home and school environment, and parent and student characteristics. The measure of the family's economic resources is the parent's report of total family income from all sources in 1987 (measured in thousands of dollars). The parent characteristics we control for include the primary caregiver's (in most cases, the mother's) age and education. Age and education are represented as a set of dummy variables. We also control for baseline family structure with a dummy variable indicating whether a single parent headed the household. Other household characteristics include whether the primary language spoken in the home is not English and the number of siblings the child has. The student characteristics we control for include the child's age and sex and the caregivers' reports of whether the student has a physical or mental disability.

Mediators

We consider two potential mediators for the effect of parents' job loss on adolescents' adjustment. Again, these measures, which were collected in the 8^{th} and 10^{th} grades, are represented in our regression models as changes in the level of parent behavior over the observation period. The questions underlying these measures were structured to reflect the monitoring and involvement received by the youth from their parents. Unfortunately, the questions do not distinguish between maternal and paternal behavior.

Monitoring. The measure of monitoring we use is a four-item measure based on student reports of how often their parent(s) (a) check on the student's homework, (b) limit the student's TV watching or video games, (c) limit the student's time with friends on school nights; and (d) require the student to do work or chores around the house. Items were coded on a 4-point Likert scale ranging from 1 "never" to 4 "often." The internal reliability of this measure is .62 and .91 at the base year survey and first follow-up, respectively.

Parental involvement. The measure of parental involvement we use is a three-item index based on student reports of how often they have discussions with their parent(s) concerning (a) selection of courses or programs at school, (b) school activities or events of particular interest to the student, and (c) the things they are studying in class. At the base-year survey, the student was asked "Since the beginning of the year, how often have you discussed the following with

either or both of your parents?" and coded 1 "not at all", 2 "once or twice" and 3 "3 or more times." In the follow-up survey, the students were asked, "In the first half of this school year, how often have you discussed the following with either or both of your parents?" and coded 1 "never", 2 "sometimes" and 3 "often." The internal reliability of this measure is .77 and .76 at the base year survey and first follow-up, respectively.

We would have also liked to examine whether the effects of job loss on the adolescent outcome measures can be explained (mediated) by changes in parents' economic circumstances between the two observations. Unfortunately, family income was not assessed at the first follow-up, nor was any other measure of downward mobility, cutbacks, or financial strain. However, our final set of analyses (described below) asks a related question; namely, whether the effects of parental job loss differ depending on the families' initial level of socioeconomic status. These analyses interact job loss with the base year measures of (a) primary caregiver's education and (b) family income.

Method

We address our research questions through the use of OLS multivariate regression analyses of the change over time in test scores, school attendance problems, locus of control, and self-concepts of students whose mothers or fathers lose a job. To mitigate the effect of outliers, for each outcome we trim the sample of observations falling into the top or bottom 5% of the change in the outcome from the 8^{th} to 10^{th} grades. Because of this trimming and because of weighting, the number of observations used changes slightly across outcomes. All analyses are weighted to be nationally representative. Moreover, standard errors are adjusted to account for multiple students being surveyed from the same schools.

In our first set of analyses, we estimate models including only measures of mother and father job loss and the set of parent and student control variables. The results of these analyses indicate whether parental job loss is associated with decreased school performance and psychosocial functioning and whether this association persists controlling for a wide array of background characteristics.

In our next set of analyses, we determine whether any observed association between parental job loss and school performance and psychosocial functioning is mediated through changes in parents' behavior. To do this, we add the hypothesized mediating variables—changes in parental monitoring and involvement. The extent of these mediating effects is determined by comparing the partial correlation between job loss and adolescent adjustment estimated from the models with the mediators included with that from the models with the mediators excluded.

To address the question of race differences in the effects of job loss on adolescent outcomes, we conduct all of our analyses separately for black and white respondents. Finally, we examine whether the impact of parental job loss differs for those at different levels of socioeconomic status at baseline.

A potential limitation of our analyses is that there is no guarantee that the estimated relationship between parental job loss and students' adjustment is causal. Even controlling for an extensive set of background characteristics such as those available in the NELS, it is possible that there are important unmeasured characteristics of parents or students that are correlated with both parents' job loss and the student outcomes we examine. For example, parents' employment history, past experiences with racism, or mental health may all be associated with parental job loss and also be related to the student outcomes. If these unmeasured characteristics are correlated with both job loss and adolescent outcomes, and because they cannot be controlled for

in our analyses, our estimated associations between job loss and adolescent outcomes may be biased and should not be interpreted as causal. Our use of the longitudinal data available in the NELS is meant to address this issue. In particular, we believe *a priori* that changes in test scores, school attendance problems, locus of control, and self-concept are far less likely to be affected by parents' being non-randomly selected into groups experiencing job loss or not than are the levels of the same outcome variables.

Results

Table 1 presents descriptive statistics on all independent variables. In this table "BY" refers to the base-year (8th grade) measurement of the outcome measure; "F1" refers to the "first follow-up," or 10th grade measure. Among black families, the prevalence of paternal job loss over this 2-year period is 7.2%; the corresponding job-loss rate for mothers is 3.7%. Among whites, the prevalence of paternal job loss is 5.5% while the rate for mothers is 3.4%. Thus, there are race differences in job loss rates in our sample, but the race difference is significant for paternal job loss only.

Black parents and 8th grade adolescents tend to be slightly older than their white counterparts in the NELS. Moreover, black parents have less education on average, are more likely to be single at baseline, have lower family income, and are more likely to report that their child has a mental or physical disability. Black 8th graders, on average, have more siblings, lower math scores, more problem behaviors, less internal locus of control, higher self-concept, and lower parental involvement.

In Tables 2-5, we present the results of multivariate regression analyses controlling for the set of relevant background characteristics. We present two models: Model 1 includes just the parent and student characteristics and the maternal and paternal job loss variables. Model 2 adds two measures of change in family processes (parental monitoring and parental involvement) between BY and F1 to test the hypothesis that parental job loss adversely affects adolescent adjustment through its negative effect on changes in parent behavior. All four of the outcome measures are standardized; thus, regression coefficients are expressed as standard deviation units. For all of the outcomes, we present results separately by race.

In Table 2, we present the results for changes in math scores from BY and F1. For black adolescents, paternal job loss is associated with a 0.15 standard deviation decline in math scores, which is significant at the 1% level. Somewhat surprisingly and in contrast, maternal job loss is associated with improved math scores for black adolescents. When we allow for the mediating effects of changes in parental monitoring and involvement (Model 2), the changes in math scores for black students remain statistically significant and only minimally different from those obtained in Model 1. In Model 2 for blacks, we see that an increase in parental monitoring is associated with a marginal decrease in test scores, while an increase in involvement is associated with a small increase in test scores. For white adolescents in contrast, there are no effects of either paternal or maternal job loss on changes in youth's math test scores.

In Table 3, we present the results for changes in school attendance problems between BY and F1. For black adolescents, paternal job loss is associated with a very large—0.51 of a standard deviation—increase in the index of attendance problems. For whites, however, there is no association between paternal job loss and changes in problem behavior. Maternal job loss is not associated with school attendance problems for either group. Finally, Model 2 shows that

none of the effect of fathers' job loss on black students' school attendance problems is mediated by changes in parental monitoring or involvement.

In Table 4, we present the results for changes in locus of control. Recall that increases in this index captures a move towards a more internal locus of control. There are no effects of parental job loss on changes in black adolescents' locus of control, nor are there any effects of maternal job loss for either group. Among whites, there is a small (.06 of a standard deviation) negative effect of paternal job loss on locus of control, virtually none of which is explained by changes in parental behavior. Table 5 presents the results for changes in self-concept as a function of parental job loss. We find no effects for either parents' job loss on either black or white adolescents' self-concepts.

Finally, we examine whether the detrimental effect of parental job loss differs for families with differing socioeconomic characteristics. We test these interactions for our two substantively important findings–the negative effects of black fathers' job loss on youth's math test scores and school attendance. Table 6 presents these results. The first two columns show the different effects of black fathers' job loss among families whose primary caregiver has only a high school education (A) or more than a high school education (B). As in the previous analyses, these coefficients are expressed in standard deviation units and control for the set of control variables (but not the parenting measures, whose inclusion, as in the previous analyses, did not change the results). As can be seen, the effect of paternal job loss on declines in black students' math scores is substantial and statistically significant among those in families whose primary caregiver has limited education. In contrast, there is virtually no effect among families whose primary caregiver has more than a high school education. Moreover, these two effects are significantly different from one another at the 1% level. Columns 4 and 5 present the results for the interactions between paternal job loss and family income, for which we distinguish families with less than the median black family income (A) from those whose income is at the median or greater for the sample of black families (B). These results show a statistically significant negative effect of fathers' job loss on black students' math test scores for those with less than the median income, and a negative (but not statistically significant) effect for those with higher incomes. These two effects, however, are not significantly different from one another.

The second row of Table 6 presents the results for school attendance problems. As can be seen, the effect of paternal job loss on increases in black students' school attendance problems is quite substantial and statistically significant among those in families whose primary caregiver has limited education. In contrast, there is a smaller effect among families whose primary caregiver has more than a high school education. These two effects are significantly different from one another. The interactions between paternal job loss and family income show a statistically significant and large negative effect of fathers' job loss on black students' school attendance problems for those in families with less than the median income, and a smaller (and not statistically significant) effect for those with higher incomes. As was the case with education, these two effects are not significantly different from one another.

To summarize, the negative effects of job loss appear to be limited to those associated with the loss of fathers' jobs and also are more severe among black families. Among black youth, fathers' job loss has detrimental and sizeable effects on math test scores and school attendance problems. Among whites, the negative effect of fathers' job loss is limited to youth's locus of control, although the effect is not substantively important. Mothers' job loss has no detrimental effects on any of the adolescent outcome measures. The negative effects we observe are not well-explained by contemporaneous changes in parental monitoring or involvement.

Finally, the negative effects of black fathers' job loss on adolescents' math test scores and school attendance problems appear to be more severe among families with more disadvantaged socioeconomic characteristics.

Discussion

In this study, we examined the impact of parental job loss on adolescents' academic achievement, school attendance problems, and psychological adjustment. The findings show that fathers' job loss has particularly deleterious consequences for black adolescents and much smaller and more limited negative consequences for white adolescents. Mothers' job loss has no negative effects on the adolescents' adjustment.

These short-term effects of paternal job loss portend the possibility of longer-term negative outcomes, especially for black youth. Declines in test scores and increases in school attendance problems could affect later academic achievement, especially given the large estimated effects on black youth in response to a father's job loss.

How does parental job loss—in particular paternal job loss—lead to worsening adjustment for children? We examined two theoretically based mediators of the effect of job loss on adolescent outcomes—parents' monitoring behavior and parents' involvement—and find that very little of the effect of job loss on adolescent outcomes are the result of changes in parents' monitoring or involvement.

Because of the importance placed in the literature on the effects of changes in parental behavior as mediators of economic hardship on children's adjustment, our lack of findings to support this theory was surprising. There are several reasons to believe, however, that the measures of parenting available in the NELS are insufficient to provide a test of the theory that job loss affects adolescent outcomes through a change in parenting behavior. First, in regressions of job loss on parenting behavior, controlling for student and parent characteristics, we found that job loss did not predict changes in monitoring. Job loss did predict changes in parental involvement, however. Thus, one of the two theoretically chosen mediators we examine does not, in the NELS, correlate with job loss in the first place. Second, our measure of parental involvement is comprised of questions regarding the parents' involvement with the adolescents' school activities. There are surely other important aspects of parental involvement, and parenting more generally, that are neither captured by this measure nor affected by job loss. Third, the measures of parenting available in the NELS may reflect maternal behaviors while the largest effects of job loss come from fathers' job loss. Thus, we do not believe our results are sufficiently strong to conclude that job loss does not affect adolescent outcomes through its effect on parenting. Rather, we have not been able to find strong evidence of such an effect in the NELS. Given the preponderance of studies that have identified parental psychological well being and parent-child relationships as important mediators of the impact of economic hardship on youth's adjustment, we do not reject those conclusions here. This is clearly a question deserving further study with better measures.

In additional specifications, not reported in the paper, we also examined whether the observed effects could be explained by a set of "stressful life events" that a parental job loss might precipitate and that were reported by the adolescent in the first follow-up as having occurred or not since the base-year observation. These events include having changed residences, the family's having gone on welfare, having an unmarried sister who became

pregnant, and having a sibling drop out of high school. Adding these putative mediators to the model did not change our results.

As discussed previously, we were also unable, due to data limitations, to examine whether parental job loss affects adolescent outcomes through its effect on changes in family financial resources, or adolescent perceptions thereof. This remains an important question for future research. However, we suggested that, for black families in particular, the detrimental effect of parental job loss may be due to their limited wealth. The NELS does not measure wealth; however, low education and low income are indicative of low wealth. The results do suggest that the negative effects of black fathers' job loss are mainly for low educated and low-income families, though the income effects are weaker and our analysis is plagued by a small number of observations. Future work should examine the role of wealth more closely, both as a moderator of parental job loss and as a factor that can explain black-white differences in the impact of job loss. Financial assets might buffer against the negative effects of a parental job loss or other economic shocks by minimizing economic pressure and perhaps serving as a "psychological buffer" against worries about the future. Youths' reactions to parental employment downturns may be moderated by the knowledge that financial resources important for future success are available from sources other than parents' current earnings. This may be especially important during adolescence, when families are making plans for children's future education and how to finance it.

Another explanation for why the effects of paternal job loss appear to be stronger among black families could be differences in black and white parents' experiences of racial discrimination at the workplace. Parents' own experiences of race-based discrimination in the labor market predict the extent to which they socialize their adolescents to be prepared for future experiences of racial bias (Hughes & Chen, 1999). Expectations by parents and their children regarding future discrimination may be associated with adolescents' achievement-related expectations and behaviors. On one hand, higher rates of perceived discrimination on the part of parents may be associated with greater encouragement for their children to do well in school. On the other hand, youth who perceive that discrimination will negatively affect their future economic well-being could respond by disengaging from school (Ogbu, 1992; Taylor, Casten, Flickinger, Roberts, & Fulmore, 1994). Middle-class black adults in professional, white-collar occupations (who are included in our nationally-representative sample) are likely to be underrepresented at their places of employment and might be especially aware of workplace race dynamics, especially given their elevated risk of discrimination in the labor market (Wilson et al., 1995). Unfortunately, the NELS lacks any type of measure that would help us address this issue.

Future work should also examine why the effects of fathers' job loss appear to be more severe than the effects of mothers' job loss. Perhaps the effects are stronger for fathers' job loss because fathers contribute more to the household economy, or perhaps because of fathers' roles in the family (i.e., a father's identity is more linked to the role of worker and thus it is harder on the family system when fathers lose jobs). Elder's (1999) conceptual framework posits that economic hardship made a difference in children's lives during the Great Depression in part by increasing the relative power of the mother and diminishing the attractiveness of the father as a role model. Perhaps this phenomenon is also relevant to contemporary families.

We stress two points regarding the strength of our results and the methods employed. First, the effects of job loss on adolescent outcomes were obtained controlling for parents' education level and income, suggesting that they are not simply artifacts of the adolescents'

family background. Second, all of our outcomes—math scores, school attendance problems, locus of control, and self-concept—are measured as changes between the base year and first follow-up surveys. Therefore, any fixed and unmeasured characteristics of households that are both associated with parental employment and with the levels of these youth outcomes will be differenced out in the analysis. That is, using changes in the outcomes as our variable of interest reduces the likelihood that our results are contaminated by selection bias.

At the same time, there are three caveats resulting from limitations in the data that we are concerned about and will discuss in turn. First, students can report a job loss for a non-resident parent. While we control for whether the head of household was a single parent in the base year survey and we eliminate households in which family structure changes between surveys, it is unclear whether a job loss of a non-resident parent should be considered equivalent to one of a resident parent. A job loss of a non-resident parent may not result in as large a decline in the financial resources available to the adolescent. Moreover, any decline in parenting may be less apparent for a non-resident parent experiencing a job loss. Complicating matters is the fact that our measures of parenting, although they ask about mothers' and fathers' parenting, likely do not include the parenting of a non-resident parent. To alleviate our concerns over this measurement issue, we conducted two sensitivity tests of our empirical models. First, we excluded all single parents from the analyses. Second, we restricted our measure of job loss so that it only applied to resident parents. In both cases, none of our results changed substantively.

Our second concern is that while a measure of parental employment is available in the base year survey of the NELS, one is not available in the first follow-up survey. We do not control for parental employment in the base year survey. It is possible that job loss is more frequent (and therefore less of a "shock" to the family) for parents who are not employed at the base year. That is, parental employment at base year might interact in important ways with job loss (and other) measures. To see how important this concern is, we re-estimated our results restricting the sample alternatively to those families where the father was employed at base line and to those families where both the father and mother were employed at base line. In neither case do the estimated effects of job loss on any of the outcomes change substantively. The results of all sensitivity analyses are available from the authors upon request.

Finally, an important limitation of our finding that the consequences of paternal job loss is larger for blacks than for whites is the fact that we cannot measure the economic losses associated with job loss. As discussed above, much of the literature on the economic consequences has found that blacks experience larger costs associated with job loss than do whites. The fact that we find larger effects on black adolescents could simply reflect these larger economic losses. Alternatively, black adolescents may be more dependent upon their father's being employed or may be more sensitive to perceived racism and discrimination than are white adolescents.

Implications

Given the climate of economic change in the United States at the present time, we can expect increasing numbers of parents to lose their jobs in the near future. Recent headlines trumpet news of corporate restructuring and mass layoffs in all sectors of the economy, from manufacturing to telecommunications. Results from this study suggest that such changes in the business cycle can have a profound impact on the development of the present generation of children and adolescents. More worrisome, our results indicate that the negative impacts of these

losses might be distributed unequally among different racial groups. If so, then current economic events might be linked to future racial inequality.

As such, our results might be relevant to public policy in several ways. For example, results might inform programs aimed at mitigating the economic shock of job loss. Such programs could involve direct financial assistance to families such as unemployment insurance programs or they could help to promote parents' job search skills, training for a new occupation, or education in effective money management. Not only might such programs help to ease the economic burden on the family and any declines in economic investments in children's activities or goods, but they could also affect the families' emotional well-being by lessening psychological distress and perceptions of economic strain.

Alternatively, programs geared at helping families cope with the emotional impact of job loss might be effective. Many different facets of families' experience of economic hardship can be targeted for prevention. These could include adolescents' worries about the family's economic situation and the impact that it might have on future options, concerns about parents' well-being and marital relationship, and heightened conflict among family members (Conger, Conger, Matthews, & Elder, 1999). For instance, programs could provide referrals or information regarding mental health services.

This study's findings are also particularly relevant for understanding the impact of job loss in black families. Black families, even in the middle class, are economically fragile (Pattillo-McCoy, 1999) and for some of these families, a job loss represents an economic catastrophe that ultimately affects the children's educational futures. Greater scientific energy needs to be devoted to understanding this phenomenon. Results from this research could, for example, help to explain why blacks are only half as likely as whites to complete college (Conley, 1999). Such findings could then inform public policy solutions that redress the college attainment gap and, by extension, the subsequent economic inequalities that result from differences in educational attainment. Policies that encourage home ownership and business proprietorship among blacks could help increase black families' economic security, thereby helping them pave the way for future generations of black youth to achieve socioeconomic success.

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Table 1. Sample Means (Standard Deviations) by Race

Variables	Total sample	White	Black
Mother's job loss	.034 (.182)	.034 (.182)	.037 (.189)
Father's job loss	.056 (.231)	.055 (.227)	.072 (.258)*
Mother's age 28 or younger	.012 (.110)	.013 (.113)	.007 (.084)
Mother's age 29-33	.123 (.329)	.111 (.314)	.231 (.422)***
Mother's age 34-38	.309 (.462)	.312 (.463)	.287 (.453)
Mother's age 39-43	.324 (.468)	.332 (.471)	.246 (.431)***
Mother's age 44-48	.153 (.361)	.158 (.364)	.120 (.325)**
Mother's age 49-58	.048 (.213)	.048 (.213)	.048 (.215)
Mother's age 59 or older	.018 (.132)	.015 (.122)	.041 (.198)***
Child's age	14.324 (.536)	14.308 (.521)	14.460 (.639)***
Parent less than HS	.105 (.306)	.094 (.292)	.197 (.398)***
Parent HS graduate	.242 (.429)	.248 (.432)	.192 (.394)***
Parent some college	.413 (.492)	.406 (.491)	.476 (.500)***
Parent college graduate	.242 (.427)	.252 (.434)	.136 (.343)***
Single parent	.157 (.364)	.131 (.337)	.394 (.489)***
Use other language at home	.038 (.191)	.040 (.195)	.022 (.146)**
Child has health problems	.085 (.278)	.084 (.277)	.092 (.289)
Child's sex (1=girl)	.508 (.500)	.503 (.500)	.559 (.497)***
Number of siblings	2.143 (1.48)	2.093 (1.43)	2.585 (1.84)***
Family income /1,000	43.729 (39.22)	45.498 (39.92)	27.989 (27.11)***
Math score, BY	.206 (.958)	.277 (.950)	-.418 (.790)***
Math score, F1	.176 (.943)	.247 (.928)	-.454 (.827)***
Change in math score, BY-F1	-.030 (.479)	-.029 (.483)	-.036 (.441)
School attendance problems, BY	-.143 (.872)	-.153 (.871)	-.055 (.881)***
School attendance problems, F1	-.117 (.929)	-.125 (.934)	-.045 (.879)*
Change in problems, BY-F1	.026 (1.03)	.028 (1.03)	.010 (.989)
Locus of control, BY	.073 (.584)	.084 (.586)	-.025 (.566)***
Locus of control, F1	.059 (.625)	.063 (.620)	.017 (.667)*
Change in locus, BY-F1	-.014 (.653)	-.020 (.647)	.042 (.705)**
Self concept, BY	.039 (.643)	.018 (.645)	.215 (.605)***
Self concept, F1	.022 (.672)	-.005 (.671)	.267 (.627)***
Change in concept, BY-F1	-.016 (.660)	-.024 (.659)	.053 (.660)***
Parental monitoring, BY	2.976 (.599)	2.972 (.602)	3.009 (.565)
Parental monitoring, F1	2.701 (.647)	2.700 (.645)	2.720 (.666)
Change in monitoring, BY-F1	-.274 (.652)	-.273 (.647)	-.289 (.696)
Parental involvement, BY	2.434 (.482)	2.444 (.479)	2.344 (.498)***
Parental involvement, F1	2.055 (.509)	2.062 (.506)	1.991 (.531)***
Change in involvement, BY-F1	-.379 (.558)	-.382 (.550)	-.353 (.622)
N	9641	8868	773

Note: Statistics are weighted; Socio-demographic characteristics of the sample are measured at Base Year; Whites and Asians are combined; BY refers to the base-year (8th grade) and F1 refers to the first follow-up (10th grade); *p <.05 ** p<.01 *** p <.001 indicate significant mean differences between Whites and Blacks.

Table 2. OLS coefficients of Parental Job Loss on Change in Math Scores by Race

	Black		White	
	Model 1	Model 2	Model 1	Model 2
Mother's job loss	.158 (.071)*	.176 (.071)*	-.018 (.023)	-.019 (.022)
Father's job loss	-.153 (.051)**	-.122 (.052)*	-.002 (.019)	-.0001 (.019)
Single parent	-.012 (.029)	-.011 (.029)	-.038 (.013)**	-.038 (.013)**
Mother's age 29-33	-.080 (.083)	-.096 (.083)	-.003 (.029)	-.002 (.029)
Mother's age 34-38	-.118 (.083)	-.121 (.082)	.010 (.028)	.009 (.028)
Mother's age 39-43	-.025 (.084)	-.028 (.084)	.001 (.028)	.002 (.028)
Mother's age 44-48	-.109 (.088)	-.117 (.088)	-.005 (.029)	-.004 (.029)
Mother's age 49-58	.047 (.097)	.050 (.096)	.015 (.033)	.016 (.033)
Mother's age 59 +	.008 (.100)	-.023 (.101)	-.004 (.044)	-.004 (.043)
Parent HS graduate	.115 (.041)**	.111 (.041)**	.014 (.016)	.012 (.016)
Parent some college	.161 (.035)***	.156 (.035)***	.026 (.015)#	.024 (.015)
Parent college graduate	.156 (.052)**	.160 (.052)**	.023 (.017)	.021 (.017)
Family income	-.001 (.001)#	-.001 (.001)#	-.0003 (.0001)**	-.0003 (.0001)**
Other language	-.102 (.082)	-.102 (.082)	.040 (.021)#	.039 (.021)#
Child's disability	-.006 (.044)	-.011 (.044)	.018 (.015)	.019 (.015)
Number of siblings	-.035 (.008)***	-.033 (.008)***	-.002 (.003)	-.002 (.003)
Child age	-.006 (.021)	-.014 (.021)	-.034 (.008)***	-.033 (.008)***
Child sex (1=girl)	-.020 (.026)	-.021 (.026)	-.004 (.008)	-.004 (.008)
Change in parental monitoring	-	-.032 (.019)#	-	.018 (.006)**
Change in parental involvement	-	.062 (.022)**	-	.011 (.008)
Constant	.129 (.324)	.268 (.326)	.455 (.120)***	.460 (.120)***
F value	6.94	6.80	2.56	2.92***
Adjusted R^2	0.13	0.14	0.004	0.005
N	708	708	7979	7979

Standard errors that correct for within school clustering are reported in parentheses; # p <.1 * p <.05 ** p <.01 *** p <.001. 65 blacks and 889 whites who fell into the top or bottom 5% (by race) of the change in math scores were excluded from the regression sample.

Table 3. OLS coefficients of Parental Job Loss on Change in School Attendance Problems by Race

	Black		White	
	Model 1	Model 2	Model 1	Model 2
Mother's job loss	.015 (.134)	.018 (.135)	.064 (.043)	.064 (.043)
Father's job loss	.509 (.104)***	.496 (.106)***	-.012 (.034)	-.015 (.034)
Single parent	.105 (.058)#	.107 (.058)#	.047 (.025)#	.052 (.025)*
Mother's age 29-33	-.122 (.160)	-.130 (.160)	.116 (.054)*	.113 (.054)*
Mother's age 34-38	-.160 (.158)	-.162 (.158)	.097 (.051)#	.098 (.051)#
Mother's age 39-43	-.113 (.161)	-.127 (.161)	.103 (.051)*	.103 (.051)*
Mother's age 44-48	.062 (.171)	.045 (.171)	.057 (.053)	.054 (.053)
Mother's age 49-58	-.232 (.186)	-.239 (.186)	.139 (.061)*	.132 (.061)*
Mother's age 59 +	-.558 (.200)**	-.634 (.205)**	.105 (.082)	.102 (.082)
Parent HS graduate	-.169 (.080)*	-.169 (.080)*	-.022 (.030)	-.019 (.030)
Parent some college	-.182 (.070)**	-.181 (.070)*	.012 (.028)	.014 (.028)
Parent college graduate	-.169 (.102)#	-.157 (.102)	-.049 (.032)	-.043 (.031)
Family income	.002 (.001)	.002 (.001)	.0003 (.0002)	.0003 (.0002)
Other language	-.152 (.183)	-.153 (.183)**	.002 (.040)	.002 (.040)
Child's disability	-.042 (.084)	.054 (.084)	-.006 (.027)	-.010 (.027)
Number of siblings	.018 (.015)	.017 (.015)	.007 (.006)	.008 (.006)
Child age	-.067 (.041)	-.071 (.041)#	.047 (.015)**	.048 (.015)**
Child sex (1=girl)	.070 (.051)	.059 (.052)	.023 (.015)	.021 (.015)
Change in parental monitoring	-	-.069 (.038)#	-	-.010 (.012)
Change in parental involvement	-	.007 (.043)	-	-.112 (.014)***
Constant	1.060 (.642)#	1.129 (.644)#	-.776 (.225)**	-.836 (.224)***
F value	5.79	5.39	2.40	5.50
Adjusted R^2	0.11	0.11	0.003	0.01
N	692	692	8077	8077

Standard errors that correct for within school clustering are reported in parentheses; # p <.1 * p <.05 ** p <.01 *** p <.001. 81 blacks and 791 whites who fell into the top or bottom 5% (by race) of the change in school attendance problems were excluded from the regression sample.

Table 4. OLS coefficients of Parental Job Loss on Change in Locus of Control by Race

	Black		White	
	Model 1	Model 2	Model 1	Model 2
Mother's job loss	.071 (.105)	.097 (.105)	.035 (.030)	.035 (.030)
Father's job loss	.037 (.098)	.039 (.097)	-.059 (.024)*	-.056 (.024)*
Single parent	.106 (.046)*	.104 (.046)*	.034 (.017)#	.031 (.017)#
Mother's age 29-33	.104 (.126)	.093 (.125)	-.060 (.038)	-.055 (.038)
Mother's age 34-38	-.012 (.124)	-.005 (.123)	-.060 (.036)#	-.059 (.035)#
Mother's age 39-43	.178 (.127)	.193 (.126)	-.045 (.036)	-.044 (.035)
Mother's age 44-48	-.048 (.136)	-.033 (.134)	-.045 (.037)	-.043 (.037)
Mother's age 49-58	-.021 (.151)	.003 (.150)	-.109 (.043)*	-.104 (.042)*
Mother's age 59 +	.224 (.157)	.279 (.157)#	.176 (.058)*	.180 (.057)**
Parent HS graduate	.021 (.065)	.020 (.065)	.005 (.021)	.006 (.021)
Parent some college	.030 (.058)	.024 (.057)	-.006 (.020)	-.007 (.020)
Parent college graduate	-.001 (.084)	-.020 (.083)	.018 (.022)	.017 (.022)
Family income	-.0001 (.001)	-.0001 (.001)	-.0003 (.0001)*	-.0003 (.0001)*
Other language	-.014 (.136)	-.025 (.135)	.019 (.028)	.016 (.028)
Child's disability	-.073 (.068)	-.061 (.068)	.009 (.020)	.011 (.020)
Number of siblings	.022 (.012)#	.020 (.012)#	.001 (.004)	.001 (.004)
Child age	-.022 (.033)	-.019 (.033)	.018 (.011)#	.017 (.011)#
Child sex (1=girl)	.093 (.042)*	.111 (.042)**	.056 (.011)***	.059 (.011)***
Change in parental monitoring	-	.082 (.030)**	-	.004 (.009)
Change in parental involvement	-	.087 (.035)*	-	.084 (.010)***
Constant	.142 (.513)	.134 (.510)	-.251 (.160)	-.210 (.159)
F value	1.88	2.54	5.24	8.33
Adjusted R^2	0.02	0.04	0.01	0.02
N	709	709	8015	8015

Standard errors that correct for within school clustering are reported in parentheses; # p <.1 * p <.05 ** p <.01 *** p <.001. 64 blacks and 853 whites who fell into the top or bottom 5% (by race) of the change in locus of control were excluded from the regression sample.

Table 5. OLS coefficients of Parental Job Loss on Change in Self-Concept by Race

	Black		White	
	Model 1	Model 2	Model 1	Model 2
Mother's job loss	.018 (.100)	.023 (.101)	.015 (.033)	.016 (.032)
Father's job loss	.082 (.074)	.095 (.076)	-.030 (.024)	-.026 (.024)
Single parent	.060 (.042)	.061 (.042)	.003 (.018)	.001 (.017)
Mother's age 29-33	.254 (.120)*	.251 (.121)*	-.033 (.039)	-.027 (.039)
Mother's age 34-38	.157 (.119)	.158 (.119)	.004 (.037)	.004 (.036)
Mother's age 39-43	.262 (.121)*	.267 (.121)*	-.015 (.037)	-.013 (.036)
Mother's age 44-48	.391 (.127)**	.401 (.127)**	-.026 (.038)	-.023 (.038)
Mother's age 49-58	.206 (.141)	.211 (.141)	-.083 (.043)#	-.073 (.043)#
Mother's age 59 +	.191 (.148)	.219 (.150)	-.081 (.058)	-.076 (.058)
Parent HS graduate	-.119 (.060)#	-.124 (.060)*	-.052 (.022)*	-.052 (.022)*
Parent some college	-.045 (.052)	-.051 (.052)	-.057 (.021)**	-.056 (.021)**
Parent college graduate	-.237 (.076)**	-.250 (.077)**	-.048 (.023)*	-.051 (.023)*
Family income	-.001 (.001)#	-.001 (.001)	.000 (.000)	-.000 (.000)
Other language	.038 (.122)	.034 (.122)	-.039 (.029)	-.042 (.028)
Child's disability	-.051 (.064)	-.047 (.064)	-.024 (.020)	-.021 (.020)
Number of siblings	-.015 (.011)	-.015 (.011)	.006 (.004)	.005 (.004)
Child age	-.010 (.030)	-.008 (.030)	-.002 (.011)	-.003 (.011)
Child sex (1=girl)	.123 (.038)**	.131 (.038)**	.046 (.011)***	.049 (.011)***
Change in parental monitoring	-	.030 (.028)	-	.018 (.009)*
Change in parental involvement	-	.022 (.032)	-	.099 (.010)***
Constant	.013 (.466)	-.002 (.468)	.037 (.163)	.102 (.163)
F value	3.73	3.45	2.55	7.65
Adjusted R^2	0.07	0.07	0.004	0.02
N	682	682	7970	7970

Standard errors that correct for within school clustering are reported in parentheses; # p <.1 * p <.05 ** p <.01 *** p <.001. 91 blacks and 898 whites who fell into the top or bottom 5% (by race) of the change in self-concept score were excluded from the regression sample.

Table 6. The Effect of Black Fathers' Job Loss on Academic Outcomes: Interaction Models

	(A) High School or Less	(B) More than High School	(A) vs. (B) (p-value)	(C) Less than Median Income	(D) Median Income or Greater	(C) vs. (D) (p-value)
Math Test Score	-.30**	-.04	.010	-.15**	-.29	.453
School Attendance Problems	.82**	.17	.002	.52**	.20	.447

** p <.01. Controls include those reported in Tables 2 and 3.

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